

CLAIM LISTING

1-16 (Canceled)

17. (Currently Amended) A clamping or braking device comprising:

a housing having a stop area;

at least one ~~plate-like~~plate-shaped element held in the housing and supported with a first end with respect to the stop area of the housing, the ~~plate-like~~plate-shaped element for transferring clamping or braking forces with a second end to an object;

wherein the plate-shaped element has at least one bending area which is convex in a starting state, which is pressure-resistant and nevertheless elastically deformable so that the bending area forms an elastic element between the stop area of the housing and the second end of the plate-shaped element;

wherein a pressure space is formed between the convex side of the at least one bending area of the at least one ~~plate-like~~plate-shaped element and the housing and the pressure space can be acted on with excess pressure of a pressure medium which can be supplied to the housing;

~~wherein the plate-like element has at least one bending area which is convex in a starting state, which is pressure-resistant and nevertheless elastically deformable so that the bending area forms an elastic element between the stop area of the housing and the second end of the plate-like element;~~

1 wherein the at least one ~~plate-like~~plate-shaped element is so constructed that
2 when the pressure space is acted on with excess pressure, a movement of the second end
3 of the at least one ~~plate-like~~plate-shaped element takes place in the direction of the object
4 as a result of a reduction of the curvature of the bending area; or an increase in the
5 clamping or braking forces which can be transferred to the object by second end of the
6 ~~plate-like~~plate-shaped element is brought about;

7 wherein the at least one ~~plate-like~~plate-shaped element includes either a) radial
8 slits which open inwardly, wherein the second end of the ~~plate-like~~plate-shaped element
9 is formed by the inside end of the ~~plate-like~~plate-shaped element; or b) radial slits which
10 open outwardly, wherein the second end of the ~~plate-like~~plate-shaped element is formed
11 by the outside end of the ~~plate-like~~plate-shaped element; and

12 one or more sealing elements disposed along the surface of the at least one ~~plate-~~
13 ~~like~~plate-shaped element, at least in the area of the radial slits, inside or outside, relative
14 to the pressure space.

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16 18. (Currently Amended) The device of claim 17 wherein the first end of the at least one
17 ~~plate-like~~plate-shaped element is connected to the housing.

18
19 19. (Currently Amended) The device of claim 17 wherein the first end of the at least one
20 ~~plate-like~~plate-shaped element is supported against the housing.

1 20. (Currently Amended) The device of claim 17 wherein the at least one ~~plate-like~~plate-
2 shaped element is constructed in the shape of a circular ring.

3
4 21. (Currently Amended) The device of claim 20 wherein the ring-shaped, ~~plate-like~~plate-
5 shaped element is constructed convex, in the starting state, over essentially the entire
6 radial cross section, wherein essentially an entire ring-shaped wall of the ring-shaped,
7 ~~plate-like~~plate-shaped element serves as ~~a~~the bending area.

8
9 22. (Currently Amended) The device of claim 21 wherein the one or more sealing elements
10 are constructed in the form of a deformable layer on at least part of the surface of the
11 ring-shaped, ~~plate-like~~plate-shaped element.

12
13 23. (Currently Amended) The device of claim 17 wherein the at least one ~~plate-like~~plate-
14 shaped element is constructed in such a way as to limit the bending of the at least one
15 bending area in such a way that after discontinuation of pressure space pressurization
16 with excess pressure, as the result of the elastic effect of at least one bending area, the
17 bending area is moved back to the starting state.

18
19 24. (Currently Amended) The device of claim 17 wherein several ~~plate-like~~plate-shaped
20 elements are provided, whose second ends have a predetermined interval, in order to
21 transfer clamping or braking forces to the object over a prespecified expanded area, and

1 wherein for each ~~plate-like~~plate-shaped element, a separate pressure space or for several
2 or all ~~plate-like~~plate-shaped elements, a common pressure space is constructed.

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4 25. (Currently Amended) The device of claim 17 wherein at least one pair of ~~plate-like~~plate-
5 shaped elements is provided, whose first and second ends are directly adjacent or are at a
6 close distance to one another and their bending areas are constructed to bend convex
7 outwardly, relative to the other ~~plate-like~~plate-shaped element of the pair, and wherein a
8 common pressure space is provided for the pressurization of the bending areas of the two
9 ~~plate-like~~plate-shaped elements of the pair.

10
11 26. (Currently Amended) The device of claim 25 wherein the ~~plate-like~~plate-shaped
12 elements are constructed in such a manner that they lie close to one another, in an ending
13 state characterized by pressurization at an excess pressure which is greater or equal to a
14 prespecified maximum pressure, with at least one partial surface area of the ~~plate-~~
15 likeplate-shaped elements' respective bending areas facing one another, wherein the
16 ending state is characterized by a suitable formation of the bending areas in such a
17 manner that an automatic return from the ending state to the pressure-less starting state
18 takes place upon removal of the excess pressure.

1 27. (Currently Amended) A clamping or braking device comprising:

2 a housing having a stop area;

3 at least one ~~plate-like~~plate-shaped element held in the housing and supported with
4 a first end with respect to the stop area of the housing, the ~~plate-like~~plate-shaped element
5 for transferring clamping or braking forces with a second end to a pressurizable element,
6 the pressurizable element for transferring the clamping or braking forces to an object;

7 wherein the plate-shaped element has at least one bending area which is convex in
8 a starting state, which is constructed pressure-resistant and nevertheless elastically
9 deformable so that the bending area forms an elastic element between the stop area of the
10 housing and the pressurizable element;

11 wherein a pressure space is formed between the convex side of the at least one
12 bending area of the at least one ~~plate-like~~plate-shaped element and the housing and the
13 pressure space can be acted on with excess pressure of a pressure medium which can be
14 supplied to the housing;

15 ~~wherein the plate-like element has at least one bending area which is convex in a~~
16 ~~starting state, which is constructed pressure-resistant and nevertheless elastically~~
17 ~~deformable so that the bending area forms an elastic element between the stop area of the~~
18 ~~housing and the pressurizable element;~~

19 wherein the at least one ~~plate-like~~plate-shaped element is so constructed that
20 when the pressure space is acted on with excess pressure provided to attain or increase
21 clamping or braking forces, a movement of the second end of the at least one ~~plate-~~

1 ~~like~~plate-shaped element takes place in the direction of the pressurizable element as a
2 result of a reduction of the curvature of the bending area; or an increase in the clamping
3 and/or braking forces, which can be transferred to the object by pressurizable element, is
4 brought about;

5 wherein the at least one ~~plate-like~~plate-shaped element includes either a) radial
6 slits which open inwardly, wherein the second end of the ~~plate-like~~plate-shaped element
7 is formed by the inside end of the ~~plate-like~~plate-shaped element; or b) radial slits which
8 open outwardly, wherein the second end of the ~~plate-like~~plate-shaped element is formed
9 by the outside end of the ~~plate-like~~plate-shaped element; and

10 one or more sealing elements disposed along the surface of the at least one ~~plate-~~
11 ~~like~~plate-shaped element, at least in the area of the slits, inside or outside, relative to the
12 pressure space.

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14 28. (Currently Amended) The device of claim 27 wherein the pressurizable element is
15 constructed as either a) one piece with the housing and as a part of the housing, or b) a
16 part connected to the housing in a detachable manner, wherein the pressurizable element
17 is constructed deformable in such a way that with a pressurization of the pressure space, a
18 movement of at least one section of the pressurizable element takes place in the direction
19 of the object or the transferrable clamping or braking forces, which were produced by the
20 at least one ~~plate-like~~plate-shaped element, are transferred to the object.

1 29. (Currently Amended) The device of claim 27, wherein the first end of the at least one
2 ~~plate-like~~plate-shaped element is connected to the housing.

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4 30. (Currently Amended) The device of claim 27, wherein the first end of the at least one
5 ~~plate-like~~plate-shaped element is supported, without a firm connection, against the
6 housing, and the second end of the at least one ~~plate-like~~plate-shaped element is
7 supported, without a firm connection, against the pressurizable element.

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9 31. (Currently Amended) The device of claim 27 wherein the at least one ~~plate-like~~plate-
10 shaped element is constructed in the shape of a circular ring.

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12 32. (Currently Amended) The device of claim 31 wherein the ring-shaped, ~~plate-like~~plate-
13 shaped element is constructed convex, in the starting state, over essentially the entire
14 radial cross section, wherein essentially an entire ring-shaped wall of the ring-shaped,
15 ~~plate-like~~plate-shaped element serves as a bending area.

16
17 33. (Currently Amended) The device of claim 32 wherein the one or more sealing elements
18 are constructed in the form of a deformable layer on at least part of the surface of the
19 ring-shaped, ~~plate-like~~plate-shaped element.

1 34. (Currently Amended) The device of claim 27 wherein the at least one ~~plate-like~~plate-
2 shaped element is constructed in such a way as to limit the bending of the at least one
3 bending area in such a way that after discontinuation of pressure space pressurization
4 with excess pressure, as the result of the elastic effect of at least one bending area, the
5 bending area is moved back to the starting state.

6
7 35. (Currently Amended) The device of claim 27 wherein several ~~plate-like~~plate-shaped
8 elements are provided, whose second ends have a predetermined interval, in order to
9 transfer clamping or braking forces to the object over a prespecified expanded area, and
10 wherein for each ~~plate-like~~plate-shaped element, a separate pressure space or for several
11 or all ~~plate-like~~plate-shaped elements, a common pressure space is constructed.

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13 36. (Currently Amended) The device of claim 35 wherein the pressurizable element is
14 constructed rigidly in the entire area in which the several ~~plate-like~~plate-shaped elements
15 are active.

16
17 37. (Currently Amended) The device of claim 27 wherein at least one pair of ~~plate-like~~plate-
18 shaped elements is provided, whose first and second ends are directly adjacent or are at a
19 close distance to one another and their bending areas are constructed to bend convex
20 outwardly, relative to the other ~~plate-like~~plate-shaped element of the pair, and wherein a

1 common pressure space is provided for the pressurization of the bending areas of the two
2 ~~plate-like~~plate-shaped elements of the pair.

3
4 38. (Currently Amended) The device of claim 27 wherein the ~~plate-like~~plate-shaped
5 elements are constructed in such a manner that they lie close to one another, in an ending
6 state characterized by pressurization at an excess pressure which is greater or equal to a
7 prespecified maximum pressure, with at least one partial surface area of the ~~plate-~~
8 ~~like~~plate-shaped elements' bending areas facing one another, wherein the ending state is
9 characterized by a suitable formation of the bending areas in such a manner that an
10 automatic return from the ending state to the pressure-less starting state takes place upon
11 removal of the excess pressure.